# Data Sheet (Cat.No.T10586L)



### BPH-1358

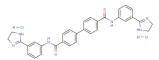
## **Chemical Properties**

CAS No.: 5352-53-4

Formula: C32H30Cl2N6O2

Molecular Weight: 601.53
Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).



# **Biological Description**

| Description                | BPH-1358 (NSC50460) is a potent human farnesyl diphosphate synthase (FPPS) and undecaprenyl diphosphate synthase (UPPS) inhibitor. With IC50s of 1.8 $\mu$ M and 110 nM, respectively. And it is active against S. aureus in vitro (MIC ~250 ng/mL)[1][2]. |  |
|----------------------------|--|--|
| Targets(IC <sub>50</sub> ) | human bisphosphonate farnesyl diphosphate synthase: 1.8 μM   |  |
| In vitro                   | BPH-1358 against E. coli and S. aureus with EC50 of 300 nM and 290 nM, respectively[1]. BPH-1358 is the mo potent inhibitor of both E. coli UPPS (EcUPPS) as well as S. aureus UPPS (SaUPPS), with an IC50 of 110 nM.                                      |  |
| In vivo                    | BPH-1358 is active against S. aureus in vivo (20/20 mice survived in an i.p. infection model with a MRSA strain) [1].  |  |

# Solubility Information

| Solubility < 1 mg/ml refers to the product slightly soluble or insoluble |  |
|--|--|
|--|--|

### **Preparing Stock Solutions**

|       | 1mg      | 5mg      | 10mg      |
|-------|----------|----------|-----------|
| 1 mM  | 1.662 mL | 8.312 mL | 16.624 mL |
| 5 mM  | 0.332 mL | 1.662 mL | 3.325 mL  |
| 10 mM | 0.166 mL | 0.831 mL | 1.662 mL  |
| 50 mM | 0.033 mL | 0.166 mL | 0.332 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

### Reference

- 1. Zhu W, et al. Antibacterial drug leads: DNA and enzyme multitargeting. J Med Chem. 2015 Feb 12;58(3):1215-27.
- 2. Liu YL, et al. Farnesyl diphosphate synthase inhibitors with unique ligand-binding geometries. ACS Med Chem Lett. 2015 Jan 29;6(3):349-54.

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